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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/001,543	10/31/2001	Frank L. Sassaman JR.	352 USF	6420

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EXAMINER	
CINTINS, IVARS C	
ART UNIT	PAPER NUMBER
1724	10

DATE MAILED: 07/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/001,543	SASSAMAN ET AL.	
	Examiner	Art Unit	
	Ivars C. Cintins	1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 April 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *12-14,17-19,21 and 22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12-14,17-19,21 and 22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *8* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

Claims 12-14, 17-19, 21 and 22 are directed to an invention not patentably distinct from claims 12-15, 17-19 and 21-29 of commonly assigned application Serial No. 10/017,077. Specifically, the claims of this application differ from those of application Serial No. 10/017,077 by the recitation of a precipitation unit, instead of an ion exchange unit, to remove metal (e.g. copper) ions from the carbon bed product stream. Tagashira et al. (U.S. Patent No. 4,070,281) teaches (see lines 7-10 of the abstract) that copper ions can be removed from an aqueous stream by either precipitation or ion exchange. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the precipitation unit of Tagashira et al. for the ion exchange unit recited in the claims of application Serial No. 10/017,077, since this precipitation unit is capable of removing copper ions from an aqueous stream in substantially the same manner as the ion exchange unit of application Serial No. 10/017,077, to produce substantially the same results.

The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP § 2302). Commonly assigned , discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee is required under 37 CFR 1.78(c) and 35 U.S.C. 132 to either show that the conflicting inventions were commonly owned at the time the invention in this application was made or to name the prior inventor of the conflicting subject matter. Failure to comply with this requirement will result in a holding of abandonment of the application.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications filed on or after November 29, 1999.

Claims 12-14, 17-19, 21 and 22 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 12-15, 17-19 and 21-29 of copending application Serial No. 10/017,077 in view of Tagashira et al. As pointed out above, Tagashira et al. teaches that copper ions can be removed from an aqueous stream by either precipitation or ion exchange; and therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the precipitation unit of Tagashira et al for the ion exchange unit recited in the claims of application Serial No. 10/017,077, since this precipitation unit is capable of removing copper ions from an aqueous stream in substantially the same manner as the ion exchange unit of application Serial No. 10/017,077, to produce substantially the same results.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686

F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F 2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 17-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Claims 17-19 depend from a cancelled claim (i.e. claim 15), and are therefore indefinite.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Electronic Packaging and Production publication entitled "A Circuit Board Manufacturer's Solution to Wastewater Treatment" in view of Tagashira et al. The publication discloses an

apparatus for removing copper ions from wastewater resulting from the manufacture of circuit boards, which manufacturing system will inherently include a CMP unit; the apparatus comprising a plurality of ion exchange canisters preceded by an activated carbon vessel (see the left column, last paragraph). Accordingly, this primary reference discloses the claimed invention with the exception of the recited chemical precipitation unit. Tagashira et al. teaches that copper ions can be removed from an aqueous stream by either precipitation or ion exchange. It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the precipitation unit of Tagashira et al for the ion exchange unit disclosed in the Electronic Packaging and Production publication, since this secondary reference precipitation unit is capable of removing copper ions from an aqueous stream in substantially the same manner as the ion exchange unit of the primary reference, to produce substantially the same results. Alternatively, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the system of the primary reference with the precipitation unit of the secondary reference, i.e. in addition to the ion exchange units disclosed therein, in order to ensure the removal of copper ions from the wastewater undergoing treatment in this primary reference system.

Claims 17-19, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Electronic Packaging and Production publication entitled "A Circuit Board Manufacturer's Solution to Wastewater Treatment" and Tagashira et al. as applied above, and further in view of Bowers (U.S. Patent No. 5,045,213). The modified primary reference discloses the claimed invention with the exception of the recited precipitating material. Bowers discloses precipitating copper from an aqueous stream resulting from circuit board manufacturing activities (see col. 1,

lines 25-27) with iron sulfate (col. 10, line 14) or a dithiocarbamate compound (col. 14, lines 16-22 and 52-56). It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the precipitating agent of Bowers for the precipitating agent of the modified primary reference, since this secondary reference precipitating agent is capable of precipitating copper ions from an aqueous stream resulting from circuit board manufacturing activities in substantially the same manner as the precipitating agent of the modified primary reference, to produce substantially the same results.

Applicant's arguments filed April 14, 2003 have been noted and carefully considered, but no longer appear to be relevant in view of the new grounds of rejection.

Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to I. Cintins whose telephone number is (703) 308-3840. The

examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Blaine Copenheaver, can be reached at (703) 308-1261.

The fax phone numbers for this art unit are: (703) 872-9311 for "Official" faxes after Final Rejection; (703) 872-9310 for all other "Official" faxes; and (703) 872-9492 for "Draft" and other "Unofficial" faxes.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.

Ivars Cintins

Ivars C. Cintins
Primary Examiner
Art Unit 1724

I. Cintins
July 27, 2003